FIG. 1

*Prior Art*

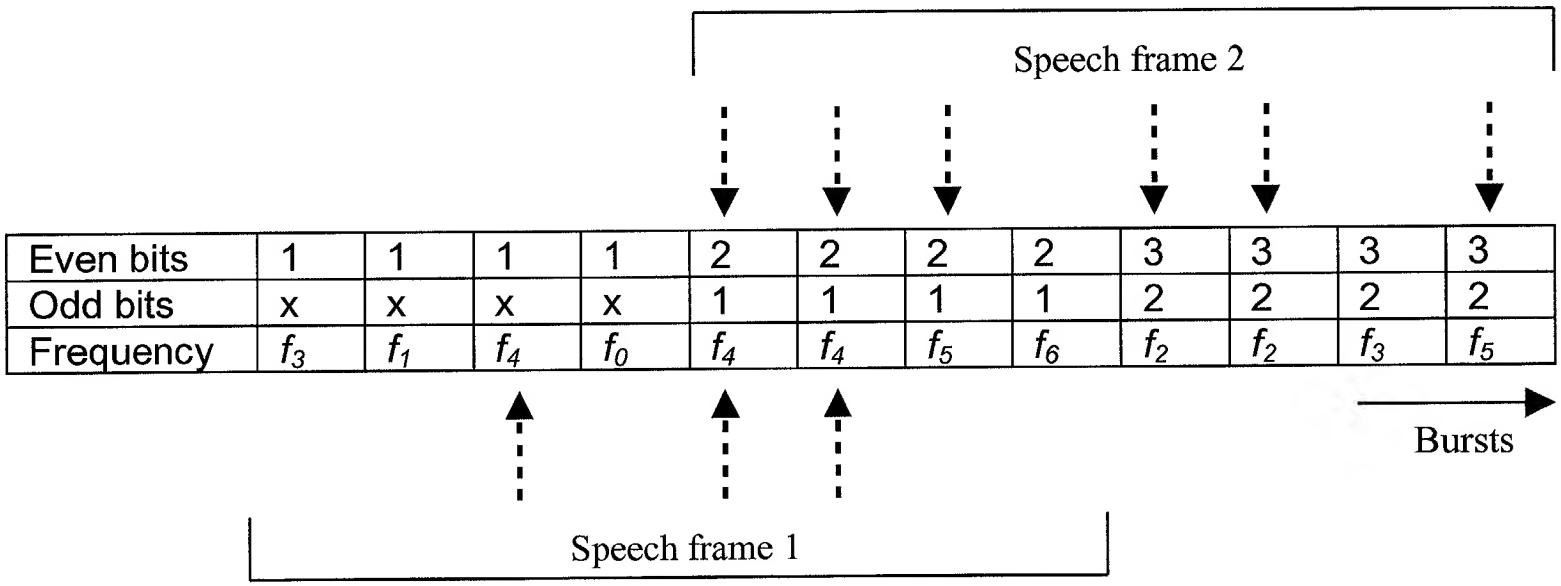

FIG. 2 Balachandran-Kang-Sanwal-Seymour 21-1-3-12

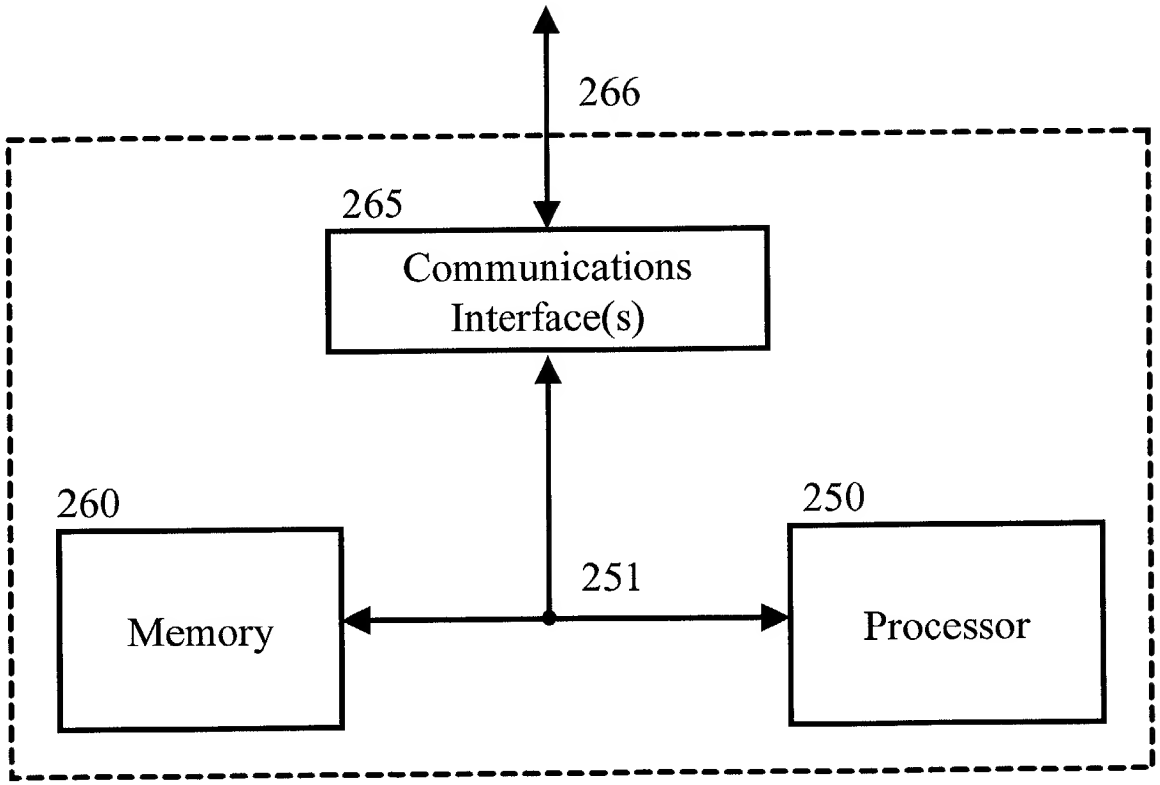

FIG. 3

| Even bits | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Odd bits | x | x | x | x | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Frequency | $f_3$ | $f_1$ | $f_4$ | $f_0$ | $f_7$ | $f_8$ | $f_5$ | $f_6$ | $f_1$ | $f_3$ | $f_0$ | $f_4$ |

FIG. 4

*Prior Art*

| Parameter | Definition | Range |
|---|---|---|
| TDMA Frame Number, *FN* | TDMA frame number | 0 to (26 x 51 x 2048) - 1 |
| Time parameter, *T1R* | [FN div (26 x 51)] modulo 64 | 0 to 63 |
| Time parameter, *T2* | FN modulo 26 | 0 to 25 |
| Time parameter, *T3* | FN modulo 51 | 0 to 50 |
| Hopping Sequence Number (*HSN*) | Used along with other time parameters to generate a pseudo-random hopping sequence | 0 to 63 |
| *NBIN* | Number of bits required to represent *N* | |
| *xor* | Bit-wise exclusive or of 8 bit binary operands | |

Table One

FIG. 5

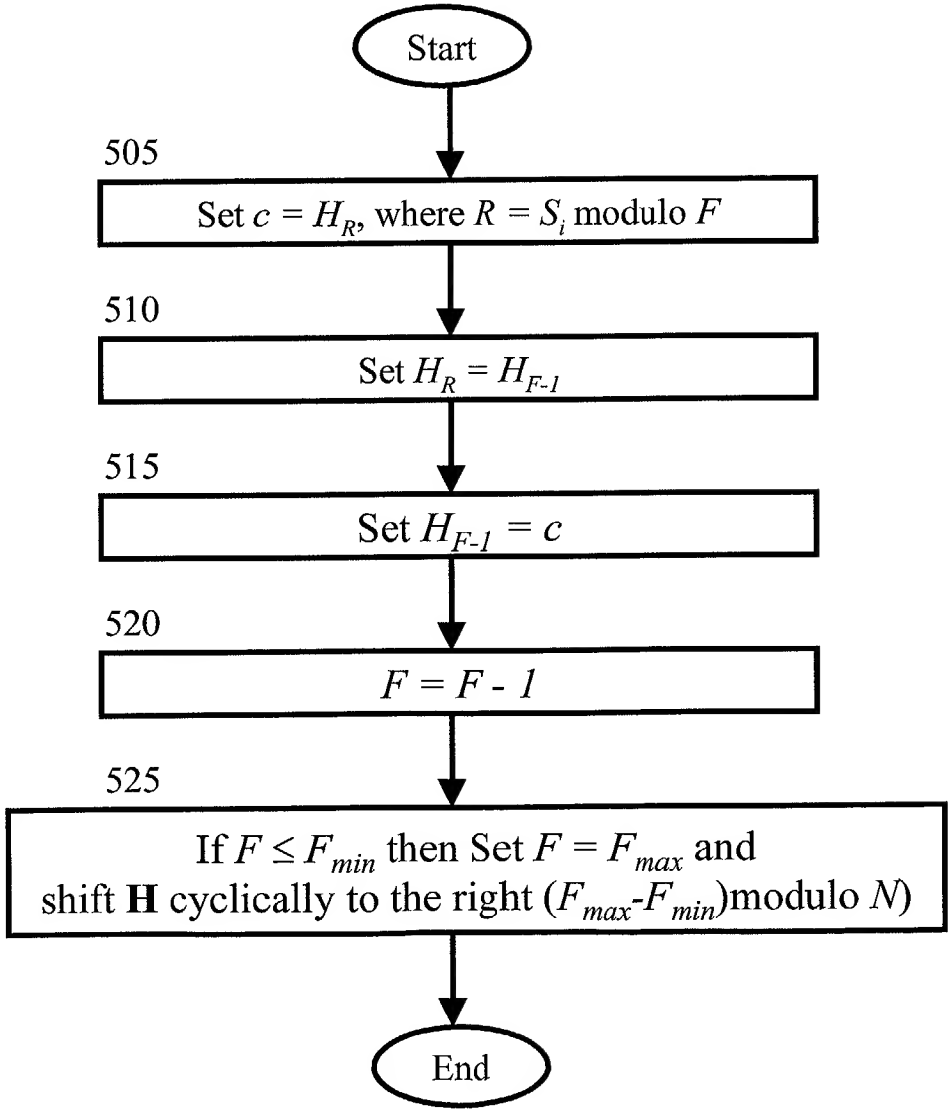
Start
505
Set $c = H_R$, where $R = S_i$ modulo $F$
510
Set $H_R = H_{F-1}$
515
Set $H_{F-1} = c$
520
$F = F - 1$
525
If $F \leq F_{min}$ then Set $F = F_{max}$ and
shift **H** cyclically to the right $(F_{max}-F_{min})$modulo $N$)
End

FIG. 6

column 1 ↓

row 1 →

| Burst Number | Hopping index | **A** | Compute Hop Frequency | **H** | *F* |
|---|---|---|---|---|---|
| -- | -- | -- | -- | $\boldsymbol{H} = \{1\ 3\ 4\ 6\ 2\ 0\ 5\ 7\}$ | $F = 4$ |
| 0 | 1 | $\boldsymbol{A} = \{1\ 3\ 4\ 6\}$ | $H_{(1 \bmod 4)} = H_1 = 3$ | $\boldsymbol{H} = \{1\ 6\ 4\ 3\ 2\ 0\ 5\ 7\}$ | $F = 3$ |
| 1 | 5 | $\boldsymbol{A} = \{1\ 6\ 4\}$ | $H_{(5 \bmod 3)} = H_2 = 4$ | $\boldsymbol{H} = \{1\ 6\ 4\ 3\ 2\ 0\ 5\ 7\}$ | $F = 2$ |
| 2 | 2 | $\boldsymbol{A} = \{1\ 6\}$ | $H_{(2 \bmod 2)} = H_0 = 1$ | $\boldsymbol{H} = \{6\ 1\ 4\ 3\ 2\ 0\ 5\ 7\}$ | $F = 1$ |
| 3 | 4 | $\boldsymbol{A} = \{6\}$ | $H_{(4 \bmod 1)} = H_0 = 6$ | $\boldsymbol{H} = \{6\ 1\ 4\ 3\ 2\ 0\ 5\ 7\}$<br>$\boldsymbol{H} = \{2\ 0\ 5\ 7\ 6\ 1\ 4\ 3\}$ | $F = 0$,<br>$F = 4$ |
| 4 | 1 | $\boldsymbol{A} = \{2\ 0\ 5\ 7\}$ | $H_{(1 \bmod 4)} = H_1 = 0$ | $\boldsymbol{H} = \{2\ 7\ 5\ 0\ 6\ 1\ 4\ 3\}$ | $F = 3$ |
| ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● |

Table Two